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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,063	10/17/2001	Kazuhisa Kashiwazaki	0234-0433P	4184

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EXAMINER	
COMBS, JANELL A	
ART UNIT	PAPER NUMBER
1742	10

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/978,063	Applicant(s) KASHIWAZAKI ET AL.	
	Examiner Janelle Combs-Morillo	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/462,744* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for the "final annealing" (claim 3 line 2), or "the percent reduction" (claim 8 lines 1-2). Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-110232.

JP 10-110232 teaches an aluminum alloy of composition comprising (in weight%): 0.2-3% Si and 0.2-3% Mg, one or more of: 0.01-0.5% Mn, 0.01-0.5% Cr, 0.01-0.5% Zr, 0.001-0.5% Ti, and one or more of: 0-2.5% Cu and 0-2% Zn, and up to 1%, which overlaps the composition as presently claimed (see abstract, etc.).

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2112.01, *In re Best* 195 USPQ 430, *In re Malagari*, 182 USPQ 549, *In re Titanium Metals Corporation of America v. Banner*, 227 USPQ 773 (Fed. Cir 1985), *In re Woodruff*, 16 USPQ 2d 1934, and *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Because of the overlap in composition ranges, JP'232 is held to create a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claim 3, JP'232 does not teach the presently claimed process step of cooling at a rate of ≥ 3°C/sec after final annealing. However, with regard to the process steps, it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ 524). Because applicant has not shown that the alloy product taught by JP'232 is materially different from the instant product by process, it is held that JP'232 has created a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claims 4-7, JP'232 does not teach examples within the instant composition and with the presently claimed properties (bending property, impact energy, TS, YS, elongation). However, the examiner points out that JP'232 shows TS, YS, and elongation values in Table 3 that fall within the presently claimed TS, YS, and elongation values for similar Al alloys. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d

1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Because the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims (such as bending property, impact energy, TS, YS, elongation) are expected to be present. It is held that JP'232 has created a prima facie case of obviousness of the presently claimed invention.

5. Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-256095 (JP'095).

JP'095 teaches an aluminum alloy sheet of composition comprising (in weight%): 0.8-3.5% Si, 0.6-1.4% Mn, 0.1-1% Fe, 0.1-0.5% Cu, up to 0.6% Mg, up to 2.0% Zn, and optionally one or more of Ti, Cr, and Zr (abstract, Table on page 3) which overlaps or touches the boundary of the composition as presently claimed. Because of the overlap in composition ranges, it is held that JP 09-256095 has created a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claim 3, JP'095 does not teach the presently claimed process step of cooling at a rate of $\geq 3\,^{\circ}C$/sec after final annealing. However, because applicant has not shown that the alloy product taught by JP'095 is materially different from the instant product by process, it is held that JP'095 has created a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claims 4-7, JP'095 does not teach said alloy exhibits the presently claimed properties (bending property, impact energy, TS, YS, elongation). However, because the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims (such as bending property, impact energy, TS, YS, elongation) are expected to be present. It is

held that JP'095 has created a prima facie case of obviousness of the presently claimed invention.

6. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 58-031054 in view of Komatsubara et al.

JP'054 teaches the production of an Al-Si-Mg-Zn-Cu-Fe alloy sheet with a substantially similar alloy composition as presently claimed, wherein said sheet is produced by substantially the same process steps as presently claimed including the conventional steps of casting, homogenizing, hot rolling, and cold rolling ≥ 50%(abstract). JP'054 does not teach the use of recycled aluminum scrap.. However, Komatsubara et al teaches that it is conventional in the art to produce similar Al-Si-Mg sheets from scrap material. It would have been obvious to one of ordinary skill in the art to combine the teachings of Komatsubara et al and JP'054, that is, to make Al-Si-Mg sheets of the composition as taught by JP'054 with recycled scrap, as taught by Komatsubara et al, because Komatsubara et al teaches it is common to make Al-Si-Mg alloy sheets out of recycled scrap.

7. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-110232 as applied to claim 1 above, and further in view of Komatsubara et al.

JP 10-110232 teaches the presently claimed process steps of casting, homogenizing, hot rolling, and cold rolling ≥ 70% (see [0003], [0016], etc). JP'232 does not teach the use of recycled aluminum scrap. Komatsubara et al teaches that it is conventional in the art to produce similar Al-Si-Mg sheets from scrap material (column 8 lines 33-38). It would have been obvious to one of ordinary skill in the art to combine the teachings of Komatsubara et al and JP'095 or JP'232, that is, to make Al-Si-Mg sheets of the composition as taught by JP'095 or JP'232 with

recycled scrap, as taught by Komatsubara et al, because Komatsubara et al teaches it is common to make Al-Si-Mg alloy sheets out of recycled scrap.

Response to Amendment/Arguments

8. In the response filed on September 9, 2002, applicant added new claims 3-8, and filed a terminal disclaimer concerning applications 09/331966 and 09/738048. The terminal disclaimer has been found proper. The double patenting rejections with regard to copending applications 09/331966 and 09/738048 have been overcome.

Applicant's argument that the instant Al-Si alloy product is allowable over JP'054 has been found persuasive (see arguments page 7, etc.).

The argument that the instant invention is allowable because JP'095 is drawn to an aluminum alloy sheet with low strength and high ductility/formability (arguments page 11-12) has not been found persuasive. JP'095 additionally teaches high strength sheets in Table 2 (Ex. 18, 22, 23, etc).

Applicant argues that the instant invention achieves excellent spot weldability, high impact-absorbing energy, and has excellent surface treatment properties (page 4, 10, 13, etc). However, applicant has not provided specific unexpected results with regard to the prior art of record. The examiner points out that in order to establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960).

The argument that the claims of US 6,325,870 B1 (US'870) do not teach an overlapping alloy composition has not been found persuasive. The manganese content recited in instant claim 1, "0.05 and less than 0.6 wt% of Mn" touches the boundary of 0.6-1.0% Mn, as taught by the claims of US'870.

Double Patenting

9. Claim 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,325,870 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of U.S. Patent No. 6,325,870 teach substantially the same Al-Mg-Si alloy composition as presently claimed, said composition comprising 3.5-5% Si, 0.3-0.8% Mg, 0.6-1.0% Mn, 0.4-1.5% each of Fe, Cu, and Zn, 0.01-0.2% of one or more of Ti, Cr, Zr, and V, wherein said alloy exhibits resistance to impact energy, excellent bending property, TS = 253-303 MPa, YS = 140-208 MPa, and elongation 21.8-24.8%. Claim 9 of US'870 teaches substanitally the same process as presently claimed in instant claims 2 and 8.

As stated above, the manganese content recited in instant claim 1, "0.05 and less than 0.6 wt% of Mn" touches the boundary of 0.6-1.0% Mn, as taught by the claim 1 of US'870.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (703) 308-4757. The examiner can normally be reached on 7:30 am- 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7719 for regular communications and (703) 305-7719 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER

jcm
November 18, 2002